IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Before the Board of Patent Appeals and Interferences

Inventor:	Jurgen Schmidt
Application No.:	10/563,709
Filed:	January 6, 2006
Title:	Method and Apparatus for Decoding a Data Stream In Audio Video Streaming Systems
Examiner:	Mohammad N. Rahman
Art Unit:	2161

APPEAL BRIEF

May It Please The Honorable Board:

Appellants reinstate an appeal in accordance with 37 CFR 41.31 in response to the Rejection, dated June 30, 2010, of claims 1-12 of the above-identified application. The fee of five hundred forty dollars ($540.00) for filing this Brief pursuant to 37 CFR 41.20(b)(2) has already been applied in the previous appeal. Enclosed is a single copy of this Brief.

No additional fee is believed due with this response. However, please charge any additional fee or credit any overpayment to Deposit Account 07-0832.

Appellants do not request an oral hearing.

I. REAL PARTY IN INTEREST

The real party in interest of Application Serial No. 10/563,709 is the Assignee of record:

Thomson Licensing

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II. RELATED APPEALS AND INTERFERENCES

An appeal was first filed regarding Application Serial No. 10/563,709 on November 5, 2008. This appeal was withdrawn by the Examiner in an Office Action dated January 30, 2009. A reinstatement of appeal was filed in response to this Office Action on May 21, 2009. This reinstatement of appeal was withdrawn by the Examiner in an Office Action dated October 27, 2009. A second reinstatement of appeal was filed in response to this Office Action on January 27, 2010. This second reinstatement of appeal was withdrawn by the Examiner in an Office Action dated June 1, 2010. On June 30, 2010, a new Office Action was issued to void the June 1, 2010 Office Action. The present appeal is currently the third reinstatement of appeal and fourth appeal filed in this Application to respond to the Office Action dated June 30, 2010.

III. STATUS OF THE CLAIMS

Claims 1-12 are rejected and the rejection of claims 1-12 is appealed.

IV. STATUS OF AMENDMENTS

All amendments were entered and are reflected in the claims included in Appendix I.

V. SUMMARY OF CLAIMED SUBJECT MATTER

Independent claim 1 provides a method for decoding a data stream containing a first and second substream (Fig. 1, page 4, lines 1-5). The first substream contains first and second multimedia data packets (Fig. 1, page 4, lines 5-12) and the second substream contains control information (Fig. 2, page 4, lines 17-22). The multimedia data packets contain an indication of the time when to be presented (Fig. 2, page 4, lines 17-22) and are decoded prior to their indicated presentation time (Page 4, lines 22-24). First, second and third control data is extracted

from the control information of the second substream. The first control data are suitable for defining buffer size to be allocated (Page 5, lines 4-20). The second control data are suitable for defining one or more second multimedia data packets to be buffered (Page 5, lines 4-20). The third control data are suitable for defining a mode for buffering the second multimedia data packets (Page 5, lines 4-20). Buffer size is allocated according to the first control data in a buffer (Page 5, lines 29-30). The first decoded multimedia data packets are stored in the buffer (Page 5, lines 14-18). One or more multimedia data packets are stored according to the second control data in the buffer (Page 5, lines 30-34). Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced (Page 6, lines 1-5).

Dependent claim 2 includes all the features of claim 1, along with a third control data defining one of a plurality of operation modes (Page 6, lines 1-2). In a first mode, buffering of multimedia data packets is performed when the value of the first control data changes (Page 6, lines 7-10). In a second and third mode, the second control data are valid to specify the multimedia data packets to be buffered (Page 6, lines 11-12). In the second mode, the multimedia data packets replace the buffer contents and in the third mode, the multimedia data packets are appended to the buffer contents (Page 6, lines 14-25).

Dependent claim 3 includes all the features of claim 2, along with a third mode having two variations. In the first variation, the buffering of multimedia data packets stops when the buffer is full (Page 6, lines 27-34). In the second variation, previously buffered data may be overwritten when the buffer is full (Page 7, lines 1-9).

Dependent claim 4 includes all the features of claims 1, along with a method being utilized in an instance of a processing node. The first control data (Length) defines the allocated buffer size at node creation time (Page 6, lines 27-34).

Dependent claim 5 includes all the features of claims 1, along with labels being attached to the buffered first and other multimedia data packets, and the packets may be accessed through their respective label (Page 7, lines 1-14).

Dependent claim 6 includes all the features of claims 5, along with label attached to the buffered data packets containing an index relative to the latest received data packet (Page 7, lines 16-21).

Dependent claim 7 includes all the features of claim 1, along with the first substream containing audio data and the second substream contains a description of the presentation (Page 8, lines 10-23).

Independent claim 8 provides an apparatus for decoding a data stream containing a first and second substream (Fig. 1, page 4, lines 1-5). The first substream contains first and second multimedia data packets (Fig. 1, page 4, lines 5-12) and the second substream contains control information where the multimedia data packets contain an indication of the time when to be presented (Fig. 2, page 4, lines 17-22). The multimedia data packets are decoded prior to their indicated presentation time (Page 4, lines 22-24). The first, second and third control data is extracted from the control information of the second substream. The first control data is suitable for defining allocation of buffer size (Page 5, lines 4-20). The second control data is suitable for defining one or more second multimedia data packets to be buffered (Page 5, lines 4-20). The third control data is suitable for defining a mode for buffering the second multimedia data packets (Page 5, lines 4-20). Buffer size according to the first control data is allocated in a buffer (Page 5, lines 29-30). The first decoded multimedia data packets are stored in the buffer (Page 5, lines 14-18). One or more multimedia data packets are stored according to the second control data in the buffer (Page 5, lines 30-34). Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced (Page 6, lines 1-5).

Dependent claim 9 includes all the features of claim 8, including attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label (Page 7, lines 1-21).

Dependent claim 10 includes all the features of claim 8, along with the data stream being an MPEG-4 compliant data stream (Page 8, lines 10-24).

Dependent claim 11 includes all the features of claim 1, along with replacing the stored first decoded multimedia packets with the second multimedia data packets further comprises the step of clearing the buffer before storing the second multimedia data packets (Page 7, lines 1-9).

Dependent claim 12 includes all the features of claims 8, along with the third control data defining one of a plurality of operation modes (Page 6, lines 1-2). In a first mode, buffering of multimedia data packets is performed when the value of the first control data changes (Page 6, lines 7-10). In a second and third mode, the second control data are valid to specify the multimedia data packets to be buffered (Page 6, lines 11-12). In the second mode, the multimedia data packets replace the buffer contents and in the third mode, the multimedia data packets are appended to the buffer contents (Page 6, lines 14-25).

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 1 – 12 are rejected under 35 U.S.C. § 102(b) as being anticipated by Jiro Katto, et al. "System Architecture for Synthetic/Natural Hybrid Coding and Some Experiments", IEEE TRANSACTION ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, VOL. 9, NO. 2, MARCH 1999 (PAGES 325 – 335), hereinafter "Jiro Katto."

VII. ARGUMENT

Applicants respectfully submit that Jiro Katto does not anticipate the presented claimed arrangement. Thus, reversal of the rejection of claims 1 – 12 under 35 U.S.C. § 102(b) is respectfully requested.

Overview of the Cited References

Jiro Katto describes a system architecture for synthetic/natural hybrid coding toward future visual services. Scene-description capability, terminal architecture, and network architecture are discussed by taking account of recent standardization activities: MPEG, VRML, ITU-T and IETF. A consistent strategy to integrate scene-description capability and streaming technologies is demonstrated. Experimental results are also shown, in which synthetic/natural integration is successfully carried out (see Abstract).

Rejection of claims 1 – 12 under 35 U.S.C. 102(b)

Reversal of the rejection of claims 1 – 12 under 35 U.S.C. § 102(b) as being anticipated by Jiro Katto is requested because the Examiner makes crucial misinterpretations of the cited reference. The rejection erroneously states that claims 1 – 12 are anticipated by Jiro Katto.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." MPEP §2131, citing Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

CLAIMS 1, 4 – 7 and 11

Independent claim 1 provides a method for decoding a data stream containing a first and second substream. The first substream contains first and second multimedia data packets and the second substream contains control information. The multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time. First, second and third control data is extracted from the control information of the second substream. The first control data is suitable for defining allocation of buffer size. The second control data is suitable for defining one or more second multimedia data packets to be buffered. The third control data is suitable for defining a mode for buffering the second multimedia data packets. Buffer size according to the first control data is allocated in a buffer. The first decoded multimedia data packets are stored in the buffer. One or more multimedia data packets are stored according to the second control data in the buffer. Depending on the third control data,

either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or some or all of the first decoded multimedia data packets in the buffer are replaced.

The Office Action asserts that Jiro Katto describes "the second control data are suitable for defining one or more multimedia data packets to be buffered, and the third control data are suitable for defining a mode for buffering the second multimedia data packets" and "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement. Applicant respectfully disagrees.

Jiro Katto describes a system architecture for synthetic/natural hybrid coding toward future visual services. Scene-description capability, terminal architecture, and network architecture are discussed by taking account of recent standardization activities: MPEG, VRML, ITU-T and IETF. A consistent strategy to integrate scene-description capability and streaming technologies is demonstrated. Experimental results are also shown, in which synthetic/natural integration is successfully carried out (see Abstract).

However, Jiro Katto neither teaches nor suggests that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in claim 1 of the present arrangement. The claimed second control data may be the multiplexing control data described in Jiro Katto, which are extracted from the scene description stream. Since the claimed second multimedia data packets are a portion of the first substream, they are either the video or audio data described in Jiro Katto. However, unlike the present claimed arrangement, Jiro Katto does not teach or suggest second control data that are suitable for defining multimedia data packets or portions within the video stream or audio stream. The multiplexing control data described in Jiro Katto and identified in the Office Action may be suitable only for defining complete elementary streams. Therefore, Jiro Katto does not teach or

suggest that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in the present claimed arrangement.

Jiro Katto also neither teaches nor suggests that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" and "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement. The claimed third control data must be from the second substream, which is equated to the scene description stream of Jiro Katto in the Office Action. Therefore, the third control data may be the multiplexing, buffer control or synchronization data. The replace, append, insert and remove modes mentioned on pages 327-328 in Jiro Katto relate to scene graph updating. In the scene description update data, there is a mode for updating the scene description. The replace mode sets new field values in the node to be updated, the append mode adds values in a field of the node to be updated, the insert mode inserts new children nodes and the remove mode erases children nodes. The replace and append modes modify existing nodes in the scene graph and the insert and erase modes modify the structure of the scene graph. This may define a mode for buffering data from the scene description, which is the second substream, but, unlike the present claimed arrangement, does not define a mode for buffering the second multimedia data packets from the first substream. In Jiro Katto, the multimedia data packets of the first substream, which is the video or audio data, are never replaced, appended, inserted or removed. Further, Jiro Katto does not mention how the data for scene graph updates are transmitted. The transmission can either be in the media stream properties or in the scene description stream. Therefore, Jiro Katto does not teach or suggest that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" as recited in claim 1 of the present arrangement. Additionally, as Jiro Katto buffers only complete streams, it neither teaches nor suggests "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement.

Further, the last paragraph of chapter C "Scene Update" on page 328 of Jiro Katto states that "when insert and remove commands are applied to a node associated with media streams," it does not mean that the append, replace, insert and remove modes could also be applied to the audio or video streams. Instead, it only means that certain restrictions apply for scene graph nodes that are associated with the audio or video streams since the nodes themselves are not the audio or video streams. The nodes may be group nodes or leaf nodes. Group nodes have children and the leaf nodes specify detail properties such as video textures and audio sources. The insert and remove commands are used to insert or remove child nodes, which require separate decoding channels. However, this is different from the insertion of audio or video data in the buffer of an existing buffer node. "In the case of insertion, media stream properties have to be informed" means that a child node associated with a media stream is inserted, and therefore a new decoding channel with a new buffer is required. Thus, media stream properties are updated. However, this refers to an additional stream, which requires an additional buffer and which is different from the insertion of audio or video packets in an existing buffer. Therefore, Jiro Katto neither teaches nor suggests "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 1 of the present arrangement.

In addition, the present claimed arrangement provides improved storage and retrieval of single or multiple data blocks in multimedia buffer nodes, including the selective processing of audio/video data blocks, the addition of new node fields that define the position of an audio/video data block and the loading of this block (see page 3, lines 1-21 of the specification). This allows different load modes, such as Compatibility mode, Reload mode, Accumulate mode and Continuous Accumulate mode (see page 6, lines 1-5 of the specification). These advantages and improvements are provided by the present claimed arrangements. Jiro Katto does not teach or suggest these advantages. Jiro Katto fails to teach or suggest "the second control data are suitable for defining one or more second multimedia data packets to be buffered ... the third control data are suitable for defining a mode for buffering the second multimedia data packets ...

storing one or more multimedia data packets according to the second control data in the buffer" as recited in claim 1 of the present arrangement. Unlike the present claimed arrangement, Jiro Katto's disclosure relates to the more general aspect of integration of scene description capability, interaction capability and streaming technologies. Moreover, Jiro Katto explicitly mentions that "the current MPEG-4 specification provides two update mechanisms: BIFS-Update, which happens at a given time instant, and BIFS-Anim for continuous change of node parameters" (see Page 328, Chapter II.D.). The first of these mechanisms corresponds to the conventional "Compatibility mode" of the present invention, which allows BIFS-Update at node creation time and upon modification of the length field (see page 6, lines 7-12 of the specification), but not to the other load modes of the present invention. The second mechanism is a continuous change of node parameters, which allows animation by using special multimedia streams, which is wholly unlike the present claimed arrangement. Therefore, Jiro Katto fails to teach or suggest "the second control data are suitable for defining one or more second multimedia data packets to be buffered ... the third control data are suitable for defining a mode for buffering the second multimedia data packets ... storing one or more multimedia data packets according to the second control data in the buffer" as recited in claim 1 of the present arrangement. Therefore as Jiro Katto fails to teach or suggest each feature in claim 1, a proper *prima facie* anticipation rejection has not been constructed. Furthermore, assuming, arguendo, that a proper *prima facie* anticipation rejection had been constructed, Jiro Katto does not anticipate the present claimed arrangement. Thus, it is respectfully requested that the rejection of claim 1 under 35 U.S.C. § 102(b) be reversed.

Claims 4 – 7 and 11 are dependent on claim 1 and are considered patentable for the reasons discussed above with respect to claim 1. Therefore, Jiro Katto neither discloses nor suggests the features claimed in claims 4 – 7 and 11. Consequently, it is further respectfully requested that the rejection of claim 10 under 35 U.S.C. § 102(b) be reversed.

CLAIM 2

Claim 2 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 2 is also considered patentable because Jiro Katto fails to teach or suggest that "the third control data defines one of a plurality of operation modes,

wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 2 of the present arrangement. Unlike the present claimed arrangement, Jiro Katto describes control data that specify a new stream or substream. However, since a new stream requires a new decoder to be initialized and a new channel to be opened, there is no disclosure or suggestion indicating that decoded multimedia data packets may be appended, replaced, inserted or removed in a buffer. Therefore, Jiro Katto fails to teach or suggest control data that specify multimedia data packets to be buffered, at least where the multimedia data packets are taken from the first substream and thus cannot teach or suggest "the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in the present claimed arrangement. Therefore as Jiro Katto fails to teach or suggest each feature in claim 2, a proper *prima facie* anticipation rejection has not been constructed. Furthermore, assuming, arguendo, that a proper *prima facie* anticipation rejection had been constructed, Jiro Katto does not anticipate the present claimed arrangement. Thus, it is respectfully requested that the rejection of claim 2 under 35 U.S.C. § 102(b) be reversed.

CLAIM 3

Claim 3 is dependent on claim 1 and is considered patentable for the reasons discussed above with respect to claim 1. Claim 3 is also considered patentable because Jiro Katto fails to teach or suggest that "the third mode has two variations, wherein in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is full" as recited in claim 3 of the present arrangement. Unlike the present claimed arrangement, Jiro Katto is silent regarding actions to be taken when a buffer is full. Jiro Katto only mentions that buffer overflow should be

prevented (see Page 328, paragraph 3). Therefore, Jiro Katto fails to teach or suggest that "the third mode has two variations, wherein in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is full" as recited in the present claimed arrangement. Therefore as Jiro Katto fails to teach or suggest each feature in claim 3, a proper *prima facie* anticipation rejection has not been constructed. Furthermore, assuming, arguendo, that a proper *prima facie* anticipation rejection had been constructed, Jiro Katto does not anticipate the present claimed arrangement. Thus, it is respectfully requested that the rejection of claim 3 under 35 U.S.C. § 102(b) be reversed.

CLAIMS 8 – 10

Independent claim 8 provides an apparatus for decoding a data stream. The data stream contains a first and a second substream. The first substream contains first and second multimedia data packets. The second substream contains control information. The multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time. The first and second multimedia data packets are buffered. Control information of the first, second and third control data are extracted from the second substream. The first control data is suitable for defining the buffer size to be allocated. The second control data is suitable for defining one or more second multimedia data packets to be buffered. The third control data is suitable for defining a mode for buffering the second multimedia data packets. In a buffer, buffer size is allocated according to the first control data. The first decoded multimedia data packets are stored in the buffer. One or more multimedia data packets may be stored according to the second control data in the buffer. Depending on the third control data, either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer or some or all of the first decoded multimedia data packets in the buffer are replaced.

However, Jiro Katto neither teaches nor suggests that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in claim 8 of the present arrangement. The claimed second control data may be the multiplexing control data described in Jiro Katto, which are extracted from the scene description stream.

Since the claimed second multimedia data packets are a portion of the first substream, they are either the video or audio data described in Jiro Katto. However, unlike the present claimed arrangement, Jiro Katto does not teach or suggest second control data that are suitable for defining multimedia data packets or portions within the video stream or audio stream. The multiplexing control data described in Jiro Katto and identified in the Office Action may be suitable only for defining complete elementary streams. Therefore, Jiro Katto does not teach or suggest that "the second control data are suitable for defining one or more second multimedia data packets to be buffered" as recited in the present claimed arrangement.

Jiro Katto also neither teaches nor suggests that "the third control data are suitable for defining a mode for buffering the second multimedia data packets" and "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present arrangement. The claimed third control data must be from the second substream, which is equated to the scene description stream of Jiro Katto in the Office Action. Therefore, the third control data may be the multiplexing, buffer control or synchronization data. The replace, append, insert and remove modes mentioned on pages 327-328 in Jiro Katto relate to scene graph updating. In the scene description update data, there is a mode for updating the scene description. The replace mode sets new field values in the node to be updated, the append mode adds values in a field of the node to be updated, the insert mode inserts new children nodes and the remove mode erases children nodes. The replace and append modes modify existing nodes in the scene graph and the insert and erase modes modify the structure of the scene graph. This may define a mode for buffering data from the scene description, which is the second substream, but, unlike the present claimed arrangement, does not define a mode for buffering the second multimedia data packets from the first substream. In Jiro Katto, the multimedia data packets of the first substream, which is the video or audio data, are never replaced, appended, inserted or removed. Further, Jiro Katto does not mention how the data for scene graph updates are transmitted. The transmission can either be in the media stream properties or in the scene description stream. Therefore, Jiro Katto does not teach or suggest that "the third control data are suitable for defining a mode for

buffering the second multimedia data packets" as recited in claim 8 of the present arrangement. Additionally, as Jiro Katto buffers only complete streams, it neither teaches nor suggests "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present arrangement.

Further, the last paragraph of chapter C "Scene Update" on page 328 of Jiro Katto states that "when insert and remove commands are applied to a node associated with media streams," it does not mean that the append, replace, insert and remove modes could also be applied to the audio or video streams. Instead, it only means that certain restrictions apply for scene graph nodes that are associated with the audio or video streams since the nodes themselves are not the audio or video streams. The nodes may be group nodes or leaf nodes. Group nodes have children and the leaf nodes specify detail properties such as video textures and audio sources. The insert and remove commands are used to insert or remove child nodes, which require separate decoding channels. However, this is different from the insertion of audio or video data in the buffer of an existing buffer node. "In the case of insertion, media stream properties have to be informed" means that a child node associated with a media stream is inserted, and therefore a new decoding channel with a new buffer is required. Thus, media stream properties are updated. However, this refers to an additional stream, which requires an additional buffer and which is different from the insertion of audio or video packets in an existing buffer. Therefore, Jiro Katto neither teaches nor suggests "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited in claim 8 of the present arrangement.

In addition, the present claimed arrangement provides improved storage and retrieval of single or multiple data blocks in multimedia buffer nodes, including the selective processing of audio/video data blocks, the addition of new node fields that define the position of an audio/video data block and the loading of this block (see page 3, lines 1-21 of the specification).

This allows different load modes, such as Compatibility mode, Reload mode, Accumulate mode and Continuous Accumulate mode (see page 6, lines 1-5 of the specification). These advantages and improvements are provided by the present claimed arrangements. Jiro Katto does not teach or suggest these advantages. Jiro Katto fails to teach or suggest "the second control data are suitable for defining one or more second multimedia data packets to be buffered ... the third control data are suitable for defining a mode for buffering the second multimedia data packets ... storing one or more multimedia data packets according to the second control data in the buffer" as recited in claim 8 of the present arrangement. Unlike the present claimed arrangement, Jiro Katto's disclosure relates to the more general aspect of integration of scene description capability, interaction capability and streaming technologies. Moreover, Jiro Katto explicitly mentions that "the current MPEG-4 specification provides two update mechanisms: BIFS-Update, which happens at a given time instant, and BIFS-Anim for continuous change of node parameters" (see Page 328, Chapter II.D.). The first of these mechanisms corresponds to the conventional "Compatibility mode" of the present invention, which allows BIFS-Update at node creation time and upon modification of the length field (see page 6, lines 7-12 of the specification), but not to the other load modes of the present invention. The second mechanism is a continuous change of node parameters, which allows animation by using special multimedia streams, which is wholly unlike the present claimed arrangement. Therefore, Jiro Katto fails to teach or suggest "the second control data are suitable for defining one or more second multimedia data packets to be buffered ... the third control data are suitable for defining a mode for buffering the second multimedia data packets ... storing one or more multimedia data packets according to the second control data in the buffer" as recited in claim 8 of the present arrangement. Therefore as Jiro Katto fails to teach or suggest each feature in claim 8, a proper *prima facie* anticipation rejection has not been constructed. Furthermore, assuming, arguendo, that a proper *prima facie* anticipation rejection had been constructed, Jiro Katto does not anticipate the present claimed arrangement. Thus, it is respectfully requested that the rejection of claim 8 under 35 U.S.C. § 102(b) be reversed.

Claims 9 – 10 are dependent on claim 8 and are considered patentable for the reasons discussed above with respect to claim 8. Therefore, Jiro Katto neither discloses nor suggests the features claimed in claims 9 – 10. Consequently, it is further respectfully requested that the

rejection of claim 9 – 10 under 35 U.S.C. § 102(b) be reversed.

CLAIM 12

Claim 12 is dependent on claim 8 and is considered patentable for the reasons discussed above with respect to claim 8. Claim 12 is also considered patentable because Jiro Katto fails to teach or suggest that "the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in claim 12 of the present arrangement. Unlike the present claimed arrangement, Jiro Katto describes control data that specify a new stream or substream. However, since a new stream requires a new decoder to be initialized and a new channel to be opened, there is no disclosure or suggestion indicating that decoded multimedia data packets may be appended, replaced, inserted or removed in a buffer. Therefore, Jiro Katto fails to teach or suggest control data that specify multimedia data packets to be buffered, at least where the multimedia data packets are taken from the first substream and thus cannot teach or suggest "the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents" as recited in the present claimed arrangement. Therefore as Jiro Katto fails to teach or suggest each feature in claim 12, a proper *prima facie* anticipation rejection has not been constructed. Furthermore, assuming, arguendo, that a proper *prima facie* anticipation rejection had been constructed, Jiro Katto does not anticipate the present claimed arrangement. Thus, it is respectfully requested that the rejection of claim 12 under 35 U.S.C. § 102(b) be reversed.

VIII CONCLUSION

Jiro Katto neither teaches nor suggests "the second control data are suitable for defining one or more multimedia data packets to be buffered, and the third control data are suitable for defining a mode for buffering the second multimedia data packets" and "storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer" as recited the present claimed arrangement.

The present appeal is currently the third reinstatement of appeal and fourth appeal filed in this Application. This forth Appeal Brief responds to the Office Action dated June 30, 2010. After the filing of each previous Appeal Brief, the appeals were withdrawn and prosecution reopened with a new Office Action citing new art. The current claims have now been subject to four different searches. Preparation of each appeal brief has been time consuming and costly for the applicant. In fairness to the applicant, we respectfully request that this appeal be allowed to proceed or the application allowed.

Accordingly it is respectfully submitted that the rejection of claims 1 – 12 should be reversed.

Respectfully submitted,
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APPENDIX I - APPEALED CLAIMS

1. (Rejected) Method for decoding a data stream, containing a first and a second substream, the first substream containing first and second multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, the method comprising the steps of:

extracting from said control information of the second substream first, second and third control data wherein

the first control data are suitable for defining buffer size to be allocated,

the second control data are suitable for defining one or more second multimedia data packets to be buffered, and

the third control data are suitable for defining a mode for buffering the second multimedia data packets;

allocating, in a buffer, buffer size according to the first control data (Length);

storing the first decoded multimedia data packets in the buffer; and

storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer.

2. (Rejected) Method according to claim 1, wherein the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents.

3. (Rejected) Method according to claim 2, wherein the third mode has two variations, wherein in the first variation the buffering of multimedia data packets stops when the buffer is full, and in the second variation previously buffered data may be overwritten when the buffer is

full.

4. (Rejected) Method according to claim 1, wherein the method is utilized in an instance of a processing node and wherein the first control data defines the allocated buffer size at node creation time.

5. (Rejected) Method according to claim 1, wherein labels are attached to the buffered first and other multimedia data packets, and the packets may be accessed through their respective label.

6. (Rejected) Method according to the claim 5, wherein a label attached to the buffered data packets contains an index relative to the latest received data packet.

7. (Rejected) Method according to claim 1, wherein the first substream contains audio data and the second substream contains a description of the presentation.

8. (Rejected) Apparatus for decoding a data stream, the data stream containing a first and a second substream, the first substream containing first and second multimedia data packets and the second substream containing control information, wherein the multimedia data packets contain an indication of the time when to be presented and are decoded prior to their indicated presentation time, and wherein the first and second multimedia data packets are buffered, comprising

buffering means for said buffering of the first and the second multimedia data packets;

means for extracting from said control information of the second substream first, second and third control data, wherein the first control data are suitable for defining buffer size to be allocated,

the second control data are suitable for defining one or more second multimedia data packets to be buffered, and

the third control data are suitable for defining a mode for buffering the second multimedia data packets;

means for allocating, in the buffer, buffer size according to the first control data;

means for storing the first decoded multimedia data packets in the buffer; and

means for storing one or more multimedia data packets according to the second control data in the buffer, wherein depending on the third control data either the second multimedia data packets are appended to the first decoded multimedia data packets in the buffer, or replace some or all of the first decoded multimedia data packets in the buffer.

9. (Rejected) Apparatus according to claim 8, further comprising means for attaching labels to the buffered multimedia data packets, and means for accessing, retrieving or deleting the packets through their respective label.

10. (Rejected) Apparatus according to claim 8, wherein the data stream is an MPEG-4 compliant data stream.

11. (Rejected) Method according to claim 1, wherein replacing the stored first decoded multimedia packets with the second multimedia data packets further comprises the step of clearing the buffer before storing the second multimedia data packets.

12. (Rejected) Apparatus according to claim 8, wherein the third control data defines one of a plurality of operation modes, wherein in a first mode buffering of multimedia data packets is performed when the value of the first control data changes, and in a second and third mode the second control data are valid for specifying the multimedia data packets to be buffered, wherein in the second mode the multimedia data packets replace the buffer contents and in the third mode the multimedia data packets are appended to the buffer contents.

APPENDIX II - EVIDENCE

Applicant does not rely on any additional evidence other than the arguments submitted hereinabove.

APPENDIX III - RELATED PROCEEDINGS

An appeal was first filed regarding Application Serial No. 10/563,709 on November 5, 2008. This appeal was withdrawn by the Examiner in an Office Action dated January 30, 2009. A reinstatement of appeal was filed in response to this Office Action on May 21, 2009. This reinstatement of appeal was withdrawn by the Examiner in an Office Action dated October 27, 2009. A second reinstatement of appeal was filed in response to this Office Action on January 27, 2010. This second reinstatement of appeal was withdrawn by the Examiner in an Office Action dated June 1, 2010. On June 30, 2010, a new Office Action was issued to void the June 1, 2010 Office Action. The present appeal is currently the third reinstatement of appeal and fourth appeal filed in this Application to respond to the Office Action dated June 30, 2010.

APPENDIX IV - TABLE OF CASES

1. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987)

APPENDIX V - LIST OF REFERENCES

Non-Patent References:

1. Jiro Katto et al. "System Architecture for Synthetic/Natural Hybrid Coding and Some Experiments", IEEE TRANSACTION ON CIRCUITS AND SYSTEMS FOR VIDEO TECHNOLOGY, VOL. 9, NO. 2, MARCH 1999 (PAGES 325 – 335).

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